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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,913	03/24/2004	Toshimitsu Hirai	9319S-000726	3965
27572	7590	07/03/2007	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			LAM, CATHY FONG FONG	
		ART UNIT	PAPER NUMBER	
		1775		
		MAIL DATE	DELIVERY MODE	
		07/03/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/807,913	HIRAI, TOSHIMITSU	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cathy Lam	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 April 2007.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,4-8 and 10-15 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1, 2, 4-8, 10-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____.

In view of the amendment and remarks filed on April 03, 2007, the 112 rejections have been withdrawn. However, the pending claims continue to be unpatentable as following:

***Claim Objections***

1. Claim 10 is objected to because of the following informalities: the term "fluoroakyl" is believed as an error. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

2. Claims 1-2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnur et al (US 5079600).

Schnur teaches a microelectronic device comprised of a printed circuit board (col 1 L 40-55). The printed circuit board is comprised of a non-conductive substrate and conductive patterns. The conductive pattern is a printed circuitry that is selective deposited onto the substrate (col 6 L 4-6).

The conductive pattern is formed onto a substrate by first coating the substrate with a catalytic precursor which is selectively formed, then followed by forming another metal such as nickel and/or copper, etc. thereon (col 8 L 7-11 & L 42-52). The region on the substrate, where the catalytic precursor is formed is a colloidophilic region. The examiner is taking the position that the region with the catalytic precursor and the region without the catalytic precursor are analogous to the claimed hydrophilic and hydrophobic regions, respectively.

The prior art is silent about having two conductive film wirings nor does it mention the electronic device is used for an electro-optic device.

In view of the prior art teaching, one skill in the art would choose a desired wiring (or circuit) arrangement because it is a basic design scheme in forming a printed circuit board. Regarding the device is used for electro-optic device; the examiner is taking the position that Schnur's printed circuit board can certainly be used in an electro-optic device because printed circuit board is a core element in all electronic devices.

3. Claims 1-2, 4-8 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuki et al (US 7189598).

Otsuki teaches a printed wiring board comprised of a base material and interconnecting lines. The interconnecting lines are made from metallic ink material.

The interconnecting lines are formed onto the base material through the use of fluorine film. The fluorine film is particularly a fluoroalkylsilane material, which is formed onto the surface of the base material for controlling surface tension, before metallic ink is applied (col 1 L 25-29).

The 1<sup>st</sup> and 2<sup>nd</sup> interconnecting layers (14,26) are respectively formed onto the insulating layers (10,20) (col 6 L 56-62 & Fig. 3). A terminal section (38) is formed onto a contact post (36) which is in contact the second interconnecting layer (26) (col 6 L 63-67 & Fig. 3C).

The examiner is taking the position that the second interconnectin layer (26) is analogous to the claimed second conductive film, as such it is outside and separated

from the first interconnecting layer (14). The terminal (38) is connected (or at the end) to the second conductive film.

The prior art also teaches that the 1<sup>st</sup> interconnecting layer (14) and the second interconnecting layer (26) formed of the same metallic ink (col 5 L 18-23 & col 6 L 36-40).

The prior art teaches the present invention but is silent about having a dummy wiring film. It is also silent about it is an electro optic device.

In view of the prior art teaching, one skill in the art would fabricate an electro-optic device using Otsuki's structure because a PCB can be included as part of the electro-optic device.

#### ***Response to Arguments***

4. Applicant's arguments filed on April 03, 2007 have been fully considered but they are not persuasive.

#### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Cathy Lam  
Primary Examiner  
Art Unit 1775

cfl

June 29, 2007